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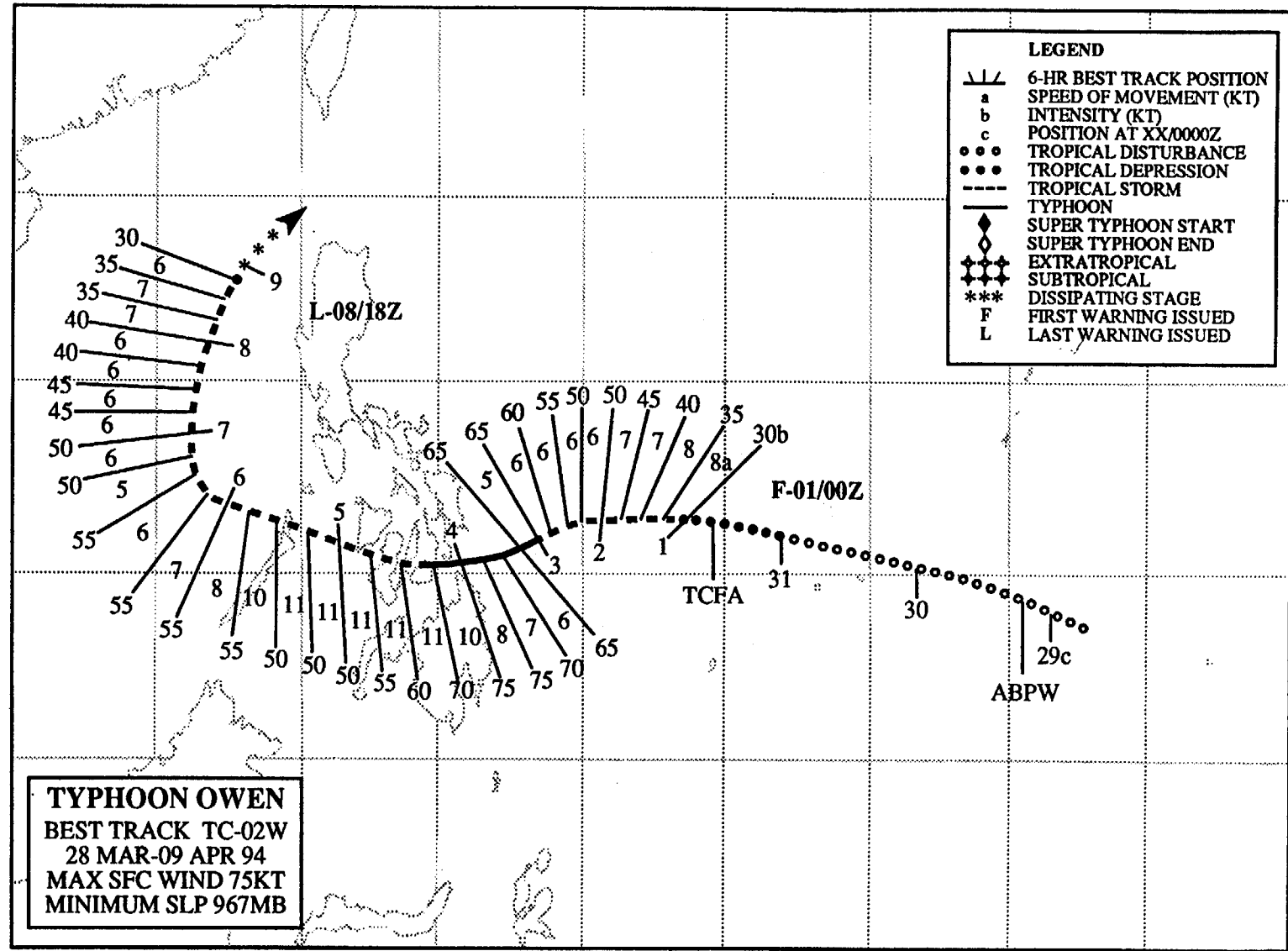
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## TYPHOON OWEN (02W)

### I. HIGHLIGHTS

Unusual southwestward motion brought Owen from the Philippine Sea across the southern islands of the Philippine Archipelago. Like many typhoons which track across the Philippine islands on a south-westward trajectory, Owen was small-sized. Until typhoon intensity was diagnosed, Owen was not forecast to reach typhoon intensity.

### II. TRACK AND INTENSITY

During the last week of March, there was extensive deep convection in Micronesia associated with a near-equatorial trough in the region. The first mention of a tropical disturbance embedded within this large-scale cloudiness over Micronesia appeared on the 290600Z March Significant Tropical Weather Advisory. On 30 March, deep convection flared along the equator in association with low-level westerly winds. The disturbance (pre-Owen) in the near-equatorial trough appeared to be shearing and losing its separate identity in the extensive cloudiness. By 31 March, the equatorial cloudiness had collapsed, and a distinct cloud cluster appeared in the near-equatorial trough that exhibited cyclonic curvature. A Tropical Cyclone Formation Alert was issued at 311800Z, followed by a warning at 010000Z.

Owen's development was contrary to expectations. It was not forecasted to become a typhoon until satellite imagery at 030000Z April indicated typhoon intensity. The presence of upper-level shear from the southeast, large diurnal fluctuations in the amount and organization of Owen's deep convection, and interaction with the Philippine Islands were considered to be factors unfavorable for intensification.

Also unanticipated was Owen's southwestward motion during the two days prior to landfall in the Philippine islands. At 020600Z, Owen began to move toward the west-southwest. By the time it passed between the islands of Leyte and Mindanao, Owen had lost nearly  $1.5^\circ$  of latitude. The peak intensity of 75 kt (39 m/sec) was reached shortly before passage between these two islands (Figure 3-02-1). Owen weakened to tropical storm intensity as it crossed several islands of the Philippine archipelago. Emerging into the South China Sea, it turned northward, steadily weakened, and dissipated over water northwest of Luzon. The final warning was issued at 090000Z.

### III. DISCUSSION

Typhoons have occurred in the month of April for fifteen of the past 36 years. Of these, six (including Owen) have made landfall in the Philippine Islands. Four (including Owen) of these six moved into the Philippine Archipelago near the island of Samar, one struck northern Luzon, and another moved westward at very low latitude ( $6^\circ\text{N}$ ) and crossed over the southern end of Mindanao.

Owen's west-southwestward motion prior to landfall in the Philippines was somewhat unusual. Climatology for the region indicates northwestward motion. Of the six typhoons impacting the Philippines in April during the past 36 years, only two — Owen and Wanda (1971) — were moving west-southwestward at landfall. Owen's later recurvature in the South China Sea at low latitude ( $13^\circ\text{N}$ ) is about  $3^\circ$  south of the average latitude of recurvature for all tropical cyclones in that region during April.

### IV. IMPACT

As Owen swept across the central Philippines, three people were killed and four were reported missing. On the island of Cebu, more than 7000 villagers living in the coastal areas were affected by flash

floods. Emerging into the South China Sea west of the Philippine islands, Owen passed to the south of the drilling rig, SEDCO 709 (11.6°N ; 118.9°E). Maximum sustained winds measured on the rig were 50 kt (26 m/sec) with a peak gust of 67 kt (35 m/sec). No damage or fatalities were reported on the rig.

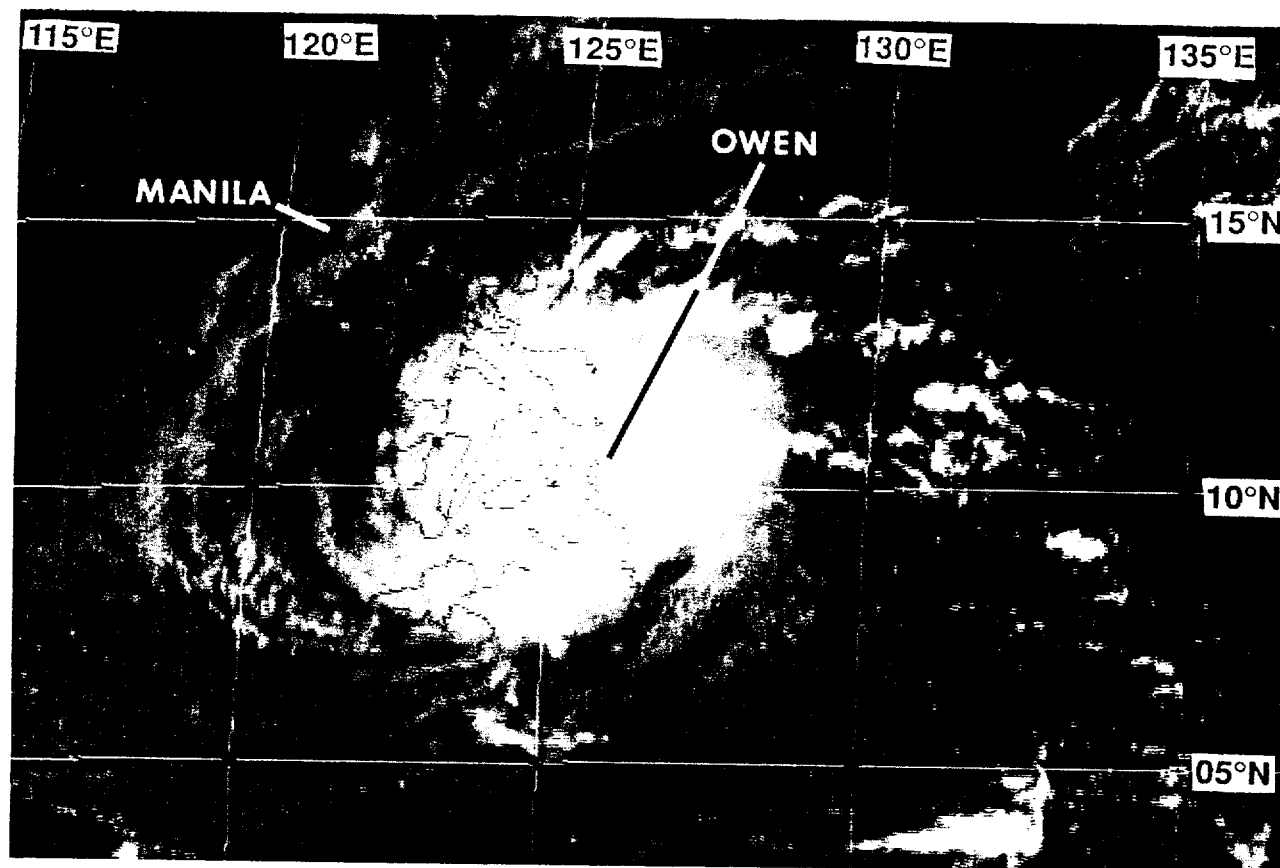


Figure 3-02-1 Owen passes between the islands of Leyte and Mindanao at its peak intensity of 75 kt ( 39 m/sec)  
(0322331Z April visible GMS imagery)